Yukon
Environment
Water Resources Branch

Water Sampling 101

Prior to Sampling:

- Contact your water lab to learn the 'ideal' temperature and time requirements for your specific water samples to be at when they arrive at the lab.

- Use proper sampling containers designed for the type of sample(s) being sampled. Your lab will likely provide the proper sampling bottles/preservatives free of charge. Bottle type and size can affect the sampling results and may require re-sampling if incorrect bottles are used.

- Use the proper 'preservative' additives according to lab instructions to ensure sample integrity is maintained and re-sampling is not required.

Getting Started:

- Plan your trip so that samples arrive at the laboratory in the shortest time possible. This will help avoid the extra cost and time required to re-sample if samples have degraded because they did not get to the lab quick enough or were not kept at the correct temperature.

- Try to sample and ship samples to the lab early in the week. Avoid samples arriving to the laboratory on a Friday afternoon so that they will be processed prior to the weekend (see re-sampling cost above). Most labs do not process samples over the weekend and the extra delay may cause a loss in sample integrity (possibly requiring re-sampling). Contact your lab about their weekend hours of service.

- Take samples at the same location as stated in the licence (any deviations or unusual site conditions should be explained). Otherwise, you may be required to re-sample which will create an additional cost to you.

- Record the general site conditions (weather, trees, bank conditions, etc.) and field measurements (air/water temperature, water flow, pH, and conductivity) along with required water licence monitoring parameters.

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Techniques for Handling Your Water Bottles:

- Label your bottle (date, time, sample site, any preservatives added) immediately BEFORE you take your sample. It can be difficult to write on a wet bottle and you may forget to include all the required label information if you are in a hurry.

- Don't smoke when sampling. This may affect the sampling results and may require re-sampling.

- Use new rubber gloves each time to ensure no contamination is carried from your hands to the sample.

- Don't touch the inside lid of the sampling container. This will affect the sampling results and may require re-sampling.

Water Sampling Techniques:

- If you are sampling a creek or stream, enter the stream below the sampling site and walk upstream to the sampling site so that you are not ‘kicking up’ silt and contaminating your samples. As a rule, you should always be facing up stream when sampling and taking the sample in front of yourself.

- For in-stream/lake sampling technique:

    - Fully submerge bottle (inverted initially, pointed down*) as to not 'skim only off the surface', then move it to the middle of the water column without going near the bottom (to avoid disturbing sediment and contaminating your sample.). Then point the bottle up and bring it to the surface when full.
      *Note: if sample bottle already contains preservative, ensure bottle is kept upright to avoid loss of preservative.

- Pour out a little water to allow a 2-3 cm space at the top of the bottle so that you can add the preservative (if required) and to ensure expansion room in case the water sample freezes. (Remember to avoid freezing your samples or you may have to re-sample.)

- Use a cooler to store water samples. This will keep all samples cool in warm weather and prevent them from freezing in cold weather.

- Make sure to get your samples to the water lab within the specified time limits and at the specified temperatures.